

Plant-bacteria-herbivore experiment graphing activity

Background

Plants form interactions with many other species. These interactions may be good for the plant or bad for the plant. Legume plants (such as peas, beans, or clover) can interact with bacteria called rhizobia. Rhizobia live in soil, and attach to plant roots. Rhizobia will give the plant nitrogen, which makes plants healthier and have more nutritious leaves. In return the plant will give rhizobia carbon, which helps the rhizobia grow. Both the rhizobia and the plant benefit from this interaction.

Plants also interact with herbivores. Herbivores will feed on plant tissue, which benefits the herbivore but has a negative impact on the plant. In the class experiment, you examined what happens when plants interact with both rhizobia and herbivores at the same time.

Question

Hypothesis

Data

Plant #	Percent Leaf Damage	
	Plants with rhizobia	Plants without rhizobia
1		
2		
3		
4		
5		

Average percent damage for plants with rhizobia _____

Average percent damage for plants without rhizobia _____



Explanation

What does the graph show?

What are possible scientific explanations for these results?